# STANDARD SPECIFICATIONS

## 1. ENGINE

Perkins four stroke heavy duty high performance industrial type diesel engine.

## 2. ENGINE FILTRATION SYSTEM

- Cartridge type dry air filters.
- Cartridge type fuel filters.
- Full flow lube oil filters. All filters have replaceable elements.

# 3. COOLING RADIATOR

Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures (consult your dealer for de-ration factors).

## 4. EXHAUST SYSTEM

Silencer noise reduction level	13 (dB)
Maximum allowable back pressure	18.0 @50 Hz
(kPa)	15.0 @60 Hz

5. CIRCUIT BREAKER TYPE 3 pole ACB / MCCB (supplied disconnected and without cables)\* (contd.)

### **CONTROL PANEL**

Make	Deep Sea
Model	DSE6110

**The DSE6120 is** an Auto Start Control Module for single genset applications. It includes a backlit LCD display which clearly shows the status of the engine all the times. This module can either be programmed using the front panel configuration suite PC software.Metering and Alarm indications:

- Generator frequency
- Underspeed, Overspeed
- Generator volts (L-L, L-N)
- Generator current
- Engine oil pressure
- Engine coolant temperature
- Fuel level (Warning or shutdowm)
- Hours run counter
- Battery volts
- Fail to start/stop
- Emergency stop
- Failed to reach loading voltage/frequency
- Charge fail
- Loss of magnetic pick-up signal
- Low DC voltage
- CAN diagnostics and CAN fail/error (Please refer to DSE6120 brochure for more details)

# **ENGINE / TECHNICAL DATA**

Engine Make		Perl		
		1106-	TG2A	
Governing class		ISO 85	528-G3	
Number of Cylinders		(	5	
Cylinder Arrangement		Vertica	al in line	
Bore and Strokemm		105	x 127	
Displacement / Cubic Capacity litres			4.41	
Induction System		Turboo	charged,air to	air
Cycle		4 sti	roke	
Combustion System		Direct	Injection	
Compression Ratio		18.	2:1	
Rotation	Ant	i-clockwise, v	viewed on fly	wheel
Cooling System	Water - cooled			
Frequency and Engine Speed	50Hz & 1	500rpm	60Hz & 1	800rpm
	Prime	Standby	Prime	Standby
Gross Engine Power kW (hp)	95.5(128.0)	112 (90)	113.5 (152.5)	125.0 (167.5)
Fuel Consumption @ 50% load L/hr	12.3	-	15.4	-
@ 75% load L/hr	17.9	-	21.7	-
@ 100% load L/hr	24.3	27.1	28.9	31.7
Total Lubrication System Capacity: litres	16.1	16.1	16.1	16.1
Total Coolant Capacity (inc. radiator): litres	27.2	27.7	27.7	27.7
Exhaust Temperature: °C	514	543	517	574
Radiator Cooling Air Flow (Min): m <sup>3</sup> /sec	1.48	1.48	1.85	1.85
Combustion Air Flow: m <sup>3</sup> /min	6.01	6.27	3.76	3.76
Exhaust Gas Flow: m <sup>3</sup> /min	15.2	16.3	18.4	20.4
Fuel Tank Capacity: litres	270	270	270	270

# **DIMENSIONS AND WEIGHT\***

Length cm	Width cm	Height cm	Weight* kg (wet)
350	120	174	2500
* For skid mounted genset without enclosure		wet weight = w	vith lube oil and coolant

# **GENERATING SET MODEL (STPG 100)**

Output Ratings	Prime	Standby
380-415 V, 3 ph, 50 Hz, 1500 rpm	100KVA	110 KVA
	80 KW	88 KW
480 V, 3 ph, 60 Hz, 1800 rpm	113 KVA	125vKVA
	90.4 KW	100 KW

Applicable Voltages: 240/415 V at 50/60 Hz only (Consult your dealer for more details)

Ratings at 0.8 Power Factor

# **STPG 100**

## POWERED BY:





## **ALTERNATOR DATA**

Make	STAMFORD
Model	UCI224C
No. of bearings	1
Insulation class	Н
Total Harmonic Content	at no load <2%
Winding Leads	12
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3 (n° 6)
AVR Model	SX 460
Overspeed	2250 mn -1
Voltage Regulation	± 1.5 %

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# STANDARD SPECIFICATIONS

## 6. FUEL SYSTEM

On Generating Sets up to 800 KVA, the baseframe design can be incorporated with an integral fuel tankwith a capacity of approx. 8 hours running at Full Load. The tank is supplied complete with fill cap breather fuel feed and return lines to the Engine and drain plug.

#### 7. ALTERNATOR 7.1 INSULATION SYSTEM

The insulation system is Class H.
All windings are impregnated in either a triple dipthermosetting liquid, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin.

• Heavy coat of antitracking varnish additional protection against moisture.

## 7.2 AUTOMATIC VOLTAGE REGULATOR (AVR)

The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at  $\pm 0.5\%$ . Nominal adjustment by means of a trim pot incorporated on the AVR.

**7.3 MOTOR STARTINGAn** overload capacity equivalent to 300% of the Full Load impedance at zero Power Factor can be sustained for 10 seconds.

#### 8. MOUNTING ARRANGEMENT

#### 8.1 BASE FRAME

The complete Generating Set is mounted as a whole on a heavy duty fabricated steel Baseframe.

8.2 COUPLINGThe Engine and Alternator are directly coupled by means of an SAE flange. The Engine flywheel is flexibly coupled to the Alternator rotor.

#### 8.3 ANTI-VIBRATION MOUNTING PADSAn-

ti-Vibration pads are affixed between the Engine / Alternator feet and the Baseframe thus ensuring complete vibration isolation of the rotating assembly. The Fan & Fan Drive along with the Battery Charging

**8.4 SAFETY GUARDS** The Fan & Fan Drive along with the Battery Charging Alternator are Safety Guard protected for personal protection.

## 9. FACTORY TESTS

• The Generating set is load tested before dispatch

• All protective devices control functions and site load conditions are simulated. The generator and it's systems are checked before dispatch.

**10.EQUIPMENT FINISHINGAII** mild steel components are fully degreased and painted with powder coated paint to ensure maximum scuff resistance and durability.

#### RATINGS DEFINITION

Prime Power operation.power. 10% overload continuous These ratings are applicable for supplying continuous electrical power (at variable load) in hours lieu of commercially purchased power is available for 1 hour in 12.

#### STANDBY POWER

These ratings are applicable for supplying electrical power (at variable load) in the continuous event of a utility power failure. No overload is permitted on these ratings.

#### STANDARD REFERENCE CONDITIONS

Output ratings are presented at 25°C air inlet temperature, barometric pressure 100 kPa, relative humidity 30%. This generating set is designed to operate at high ambient temperatures (up to 55°C), humidity (up to 99%) and altitudes. De-ration may apply,please consult your dealer for specific site ratings.

JET Generators are assembled Some of the specifications are not standard on all Genset models. in facilities certified to ISO 9001 All information in this document is substantially correct at time of printing and may be altered subsequently.

Generating Set pictured may include optional accessories.

**11. DOCUMENTATIONSA** set of Operation & Maintenance manual, Circuit wiring diagrams and Commissioning / Fault Finding instruction leaflets accompany the Generator.

**12. QUALITY STANDARDS** The equipment meets the following standards: BS4999, BS5000, BS5514 IEC 60034, VDE0530, NEMA MG 1.22 and ISO 8528.

**13. WARRANTY** All of the Generating Sets are covered under a warranty policy for a period of 12 months. Warranty of the equipment is in line with manufacturers warranty terms & conditions.

(check warranty statement for more details, as it may vary for different countries)In line with continuous product development, we reserve the right to change specifications without notice.

For further information on all of the standard and optional features accompanying this product please contact your local dealer or visit:

#### WWW.STAUNCHMACHINERY.COM

#### **AVAILABLE OPTIONS & ACCESSORIES**

We offer a range of optional features and accessories to tailor our generating sets to meet your power needs.

## POWERED BY:





# ACCESSORIES

- switches
- Load banks
- Auxiliary fuel tanks
- Manual & automatic
- Genuine spare partstransfer

# **OPTIONS**

- Water jacket heater
- A variety of generating set
- Additional protection alarms
- Water fuel seperator control and synchronizing and shutdowns
- SIIULUOW
- panels Battery charger

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